

## ABSTRACT

An adaptive equalizer comprises a decision device; a decision feedback equalizer coupled to the decision device; an FIR filter coupled to the decision device; and a trellis decoder coupled to the decision device, adapted to provide a reliability output and a decoded output. An error signal is generated by subtracting an output of the decision feedback equalizer from an output of the decision device, the error signal being used to update coefficients of the taps of the FIR filter and the decision feedback equalizer. A magnitude of the change to the coefficients is selected based at least in part the reliability output of the trellis decoder.